

**AMENDMENTS TO THE CLAIMS:**

1. **(Currently Amended)** A method for detecting fusion of an enveloped retrovirus to a target cell, the method comprising:

contacting a target cell with an enveloped retroviral virion, the virion containing a chimeric viral protein comprising a reporter polypeptide operably joined to a viral accessory protein, wherein the reporter polypeptide provides a detectable signal **by cleaving a substrate in the target cell** upon intracellular delivery of the chimeric viral protein into the target cell cytoplasm, **wherein the substrate is retained in the cytoplasm and is not present at a significantly detectable level in an endosome;** **and** ~~which~~ **wherein the** detectable signal is not detectable prior to said intracellular delivery into the target cell cytoplasm; **and**

detecting the presence or absence of the detectable signal;

wherein the presence of the detectable signal indicates the virion has ~~fused with the target cell~~ **entered the target cell by viral fusion and not by endocytosis.**

2. (Original) The method of claim 1, wherein the enveloped retroviral virion is a human immunodeficiency virus (HIV) virion.

3. (Original) The method of claim 2, wherein the chimeric viral protein comprises beta-lactamase (BlaM) operably linked to Viral protein R (Vpr).

4. (Cancelled)

5. **(Currently Amended)** The method of ~~claim 4~~ **claim 1**, wherein the reporter polypeptide is beta-lactamase.

6. (Previously Presented) The method of claim 5, wherein the substrate is coumarin cephalosporin fluorescein (CCF2).

8. (Original) The method of claim 1, wherein the reporter polypeptide is beta-lactamase (BlaM).
9. (Original) The method of claim 1, wherein the chimeric viral protein comprises beta-lactamase (BlaM) operably joined to Viral protein R (Vpr).
10. (Original) The method of claim 9, wherein BlaM and Vpr are joined through a spacer peptide.
11. (Previously Presented) The method of claim 1, wherein the retroviral virion is a pseudotyped virion, and wherein the envelope protein of the pseudotyped virion is not endogenous to the retroviral virion.
12. **(Currently Amended)** A method for detecting fusion of an human immunodeficiency virus (HIV) virion to a target cell, the method comprising:  
contacting a target cell with an HIV virion containing a chimeric viral protein, wherein the chimeric viral protein comprises a beta-lactamase (BlaM) polypeptide operably linked to a viral accessory protein, and wherein the cell contains a BlaM substrate **which is retained in the cytoplasm and is not present at a significantly detectable level in an endosome, wherein** ~~so that~~ intracellular introduction of the chimeric viral protein into the target cell cytoplasm results in cleavage of the substrate by BlaM and production of a detectable signal;  
wherein detection of the detectable signal indicates that the HIV virion has ~~fused with the cell~~ **entered the target cell by viral fusion and not by endocytosis.**
13. (Original) The method of claim 12, wherein the viral accessory protein of the chimeric viral protein is Viral protein R (Vpr).
14. (Original) The method of claim 13, wherein BlaM and Vpr are operably linked through a spacer peptide.

15. (Previously Presented) The method of claim 12, wherein the HIV virion is a pseudotyped HIV virion, and wherein the envelope protein of the pseudotyped virion is not endogenous to the HIV virion.

16-31 (Cancelled)